

451 Research's

# 2022 Research Agenda

Key topics, coverage and planned deliverables



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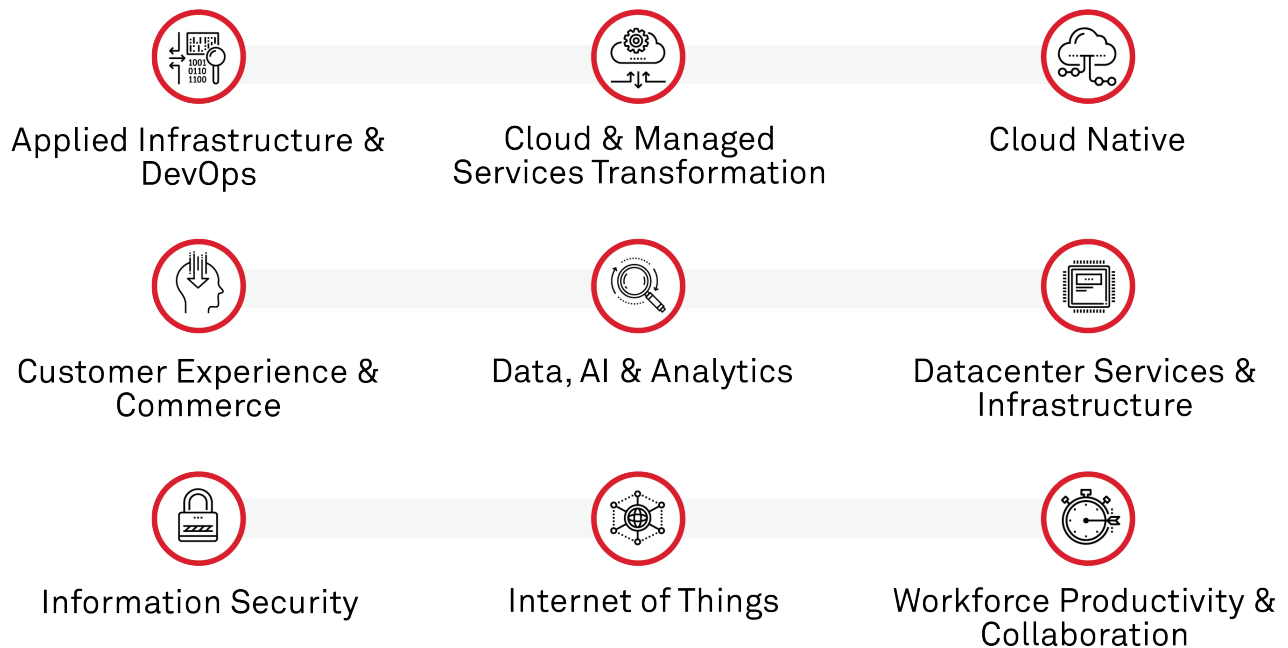
**S&P Global**

Market Intelligence

# Your radar into **market disruption, innovation and digital transformation** in the IT space.

451 Research, a technology research group within S&P Global Market Intelligence, provides a holistic view of innovation across the entire enterprise IT landscape through a combination of expert analyst insight, backed by differentiated data. Our analysts interact with key industry decision-makers every day to deliver the essential intelligence necessary to understand the pivotal role that digital transformation is playing in reshaping our world.

Our research spans nine channels that align with the prevailing issues driving IT innovation, helping clients implement, invent and invest in digital transformation. The research agenda for each channel outlines key topics, analyst coverage and planned deliverables to support our clients' critical business decisions. The pace and extent of this transformation means that many trends span multiple channels; our research approach encourages analyst collaboration both within and between channels, allowing us to surface emerging trends before anyone else. Additionally, for a higher-level perspective on the key trends that will drive digital transformation in 2022 at a strategic level, please refer to our latest [Big Picture report](#).



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# Cloud Native

Every organization is, or is becoming, a digital service provider, raising its software IQ to transform and compete in the digital economy – a process accelerated by the COVID-19 pandemic. Cloud native is now the prevailing mindset and methodology for delivering the application architecture to support this new norm. Cloud ‘nativity’ and developer enablement are strategic priorities for most enterprises undertaking application development and modernization, as well as for sectors such as telco that are transforming wholesale. Hence, there has been a Cambrian explosion of cloud-native goods and services entering the market. Collectively, these offerings have moved the addressable layer of infrastructure from the server and the VM up and into the application, which allows a lot of new and great things to happen: continuous delivery, faster time to value, scaling to meet actual demand and, ultimately, a better customer experience. The Cloud Native channel provides the application-level view of this market, in relation to the Cloud & Managed Services Transformation channel’s infrastructure-level view.



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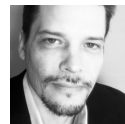
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# Key Research Topics and Themes for 2022

## ● Outcome-oriented approaches to observability

IT practitioners enjoy a wealth of options for monitoring infrastructure and applications, but tight integration between tools and within software development lifecycles is vital to delivering actionable value, rather than simply projecting metrics, traces and logs on a pane of glass.

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## ● The next wave: app modernization in the enterprise

Updating application architectures to take advantage of cloud services, reduce costs and increase adaptability has become a competitive necessity. Many enterprises have already picked the low-hanging fruit of cloud transformation – the easy wins in terms of ROI. The next phase – decomposing big, gnarly legacy applications by carving away functional blocks that can be maintained independently – is tougher. This won't be easy or straightforward, but vendors and ISVs are tackling the challenge with modern techniques that promise to reduce the toil and speed ROI.

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## ● Cloud native as de facto enterprise mindset and methodology

The re-platforming to cloud native will take some years, and it presents a golden opportunity for suppliers that can assist. The market remains fragmented, with customers facing numerous vendor options. But the re-platforming to cloud-native constructs – containers, service mesh, serverless, etc. – continues to accelerate. What is being used to reduce this complexity while delivering the benefits of speed, agility and scale? Reports will profile competitors in specific major segments with a graphical display of the market and key segments in the form of a 451 Research Market Map™. Analysis includes key attributes for each segment and a view of each vendor's solution.

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## ● Total integration: the future of hybrid IT interoperability

Total integration is an IT managerial discipline focused on accelerating an enterprise's responsiveness to business change, risk and opportunity. It's enabled by an integration technology framework designed to be both interpretive and adaptive – quickly responding to events as they occur (interpretive), and quickly facilitating interoperability of the distributed and diverse infrastructure, services, applications, data and processes of any type (adaptive) that compose the modern hybrid IT landscape (on-premises and public cloud).

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## ● The evolution of resiliency and disaster recovery

Meeting disaster recovery and business continuity requirements remains a top challenge for organizations under pressure to enhance their infrastructure and application resiliency. Just as the rise of virtualization forced organizations to rethink their data protection strategies, the advent of cloud-native technologies such as containers will drive change and potentially improve infrastructure resiliency.

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## ● Hybrid cloud storage bridges the on-premises to public cloud gap

Hybrid IT, which leverages on-premises and public cloud resources interchangeably, is the desired state for most organizations. A comprehensive approach is required to facilitate efficient resource consumption while keeping in mind the performance and resiliency requirements of production workloads.

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## ● From cloud management to control planes

The cloud management market keeps evolving – with waves of innovation and consolidation – as requirements for building, operating, securing and optimizing workloads 'here, there and everywhere' expand exponentially with the advent of cloud-native and multicloud. Cloud providers, systems vendors and ISVs are trying to solve this resulting complexity in the hope of winning the ultimate prize: hosting the management plane that enables visibility and control of distributed applications across heterogeneous environments.

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### Hybrid cloud and the evolution of workload deployment strategies

Hybrid cloud technologies increasingly merge the best of on-premises and public clouds, in turn evolving workload and infrastructure deployment strategies. We explore the factors influencing today's workload deployments and decisions to deploy hybrid architectures to support modern business requirements.

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### 5G and edge as 'killer apps' for cloud native

The interconnected world is happening around us. The success of 5G as its core will be determined by the extent to which telecom vendors and their customers can master cloud-native technologies and practices. This is because a radical shift in network service delivery architecture and approach – to cloud native and DevOps – is necessary to fully take advantage of 5G capabilities. Cloud-native design and deployment principles bring an optimal mix of application portability, reusability, time-to-market speed, automation and scale for the next generation of network operations and monetization. 5G – and, by extension, edge – are 'killer apps' for cloud native.

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### The shift to data and business-driven DevOps

DevOps, which has been in the enterprise for more than a decade, has historically been focused on faster software releases and efficient IT management. But with the addition of data analytics, AI and ML (aka AIOps), enterprises are focusing not only on improving internal processes, but also on business objectives such as user experience and customer satisfaction.

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### The implications of rapid Kubernetes expansion

Kubernetes has emerged as the de facto standard for managing application containers at scale. It is also aligned with enterprise use of hybrid and multicloud infrastructure since it is a distributed application platform. There is a reason the open source project has had such an impact on the industry with benefits around speed, efficiency and portability. But Kubernetes also comes with significant challenges including complexity, security and lack of skills.

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### Evolution of application networking

Application networking has always been at the forefront of enterprise networking. Whether it was applying quality of service to network traffic or deploying a web of application load balancers to manage and secure incoming traffic, the application has always come first. In today's cloud-native, distributed, microservices world, the emphasis on application networking has shifted to interconnecting application components securely, reliably and quickly.

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### Managed and professional services provide a vehicle for enterprise embrace of cloud native

As enterprises increasingly identify cloud-native skill sets as key to the execution of IT objectives, those skill sets are also becoming more difficult to develop and acquire. Recognizing this need, service providers offering managed and professional services for public cloud are developing capabilities specifically around enabling the cloud-native efforts of their customers.

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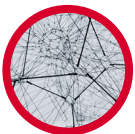
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# Our analysts engage directly with IT industry leaders to **understand current market dynamics.**



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**Briefing-driven analysis of a specific vendor**, covering the impact its business model, services, technologies and go-to-market strategy will have on the market. A company SWOT analysis is included in every report.

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## Technology & Business Insight >

Designed to complement our Market Insight service, Technology & Business Insight are longer-form reports that offer a comprehensive view of the dynamics impacting specific technology markets and sectors, showcasing a broader view where technologies are disrupting and impacting multiple market segments or within a key ecosystem.

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